

IN THE CLAIMS

1. (canceled)

2. (currently amended) A method of screening for therapeutic agents useful in the treatment of a cardiovascular disease comprised in a group of diseases consisting of disorders of the peripheral and central nervous system, cardiovascular diseases, cancer, gastroenterological diseases, endocrinological diseases and urological diseases in a mammal, comprising the steps of:

- i) determining the activity of a PDE10A polypeptide at a certain concentration of a test compound or in the absence of said test compound, and
- ii) determining the activity of said polypeptide at a different concentration of said test compound; and
- iii) identifying said test compound as a potential therapeutic agent useful in the treatment of the cardiovascular disease.

3-26. (canceled)

27. (new) A method of screening for therapeutic agents useful in the treatment of a disease selected from the group consisting of peripheral nervous system diseases; cancer, gastroenterological diseases; endocrinological diseases; and urological diseases in a mammal, comprising steps of

- i) determining the activity of a PDE10A polypeptide at a certain concentration of a test compound or in the absence of said test compound, and
- ii) determining the activity of said polypeptide at a different concentration of said test compound; and

- iii) identifying said test compound as a potential therapeutic agent useful in the treatment of the disease.

28. (new) A method of screening for therapeutic agents useful in the treatment of a central nervous system disorder selected from the group consisting of brain injuries, cerebrovascular diseases and their consequences, motor neuron disease, dementia, ALS, multiple sclerosis, traumatic brain injury, stroke, post-stroke sequelae, posttraumatic brain injury, small-vessel cerebrovascular disease, Alzheimer's disease, vascular dementia, dementia with Lewy bodies, frontotemporal dementias, Pick's disease, progressive nuclear palsy, thalamic degeneration, Creutzfeld-Jakob dementia, HIV dementia, schizophrenia with dementia, Korsakoff's psychosis, and pain comprising steps of

- i) determining the activity of a PDE10A polypeptide at a certain concentration of a test compound or in the absence of said test compound, and
- ii) determining the activity of said polypeptide at a different concentration of said test compound; and
- iii) identifying said test compound as a potential therapeutic agent useful in the treatment of the disease.